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# David Landreth & Sons

...On...

## ..Lawn Grass Seeds..



Address...

D. LANDRETH & SONS

(FOUNDED 1784)



The Seed Heads of Sixteen Varieties of Grass, sometimes all, sometimes a part, used in various Lawn Grass Mixtures.

- |                     |                           |                          |                          |               |
|---------------------|---------------------------|--------------------------|--------------------------|---------------|
| 1 Herds or Red Top. | 2 Crested Dogstail.       | 3 Rhode Island Bent.     | 4 Wood Meadow.           | 5 Hair Grass. |
| 6 Hassock Grass.    | 7 Canada Blue Grass.      | 8 Kentucky Blue Grass.   | 9 Hard Fescue.           |               |
| 10 Red Fescue.      | 11 Various-leaved Fescue. | 12 English Creeping Bent | 13 Rough Stalked Meadow. |               |
|                     | 14 Sheep's Fescue.        | 15 Sweet Vernal.         | 16 Soft Meadow.          |               |

1001 Market Street

PHILADELPHIA, PA.





## HINTS ON LAWN MAKING.

One of the success of Lawn making depends on the preparation of the ground. The land must be plowed or dug, and harrowed or raked, to secure a fine pulverization, and after being reduced to a perfectly even surface should be cleared of stumps, stones, roots and other impediments. The soil should then be made firm with a heavy roller and top dressed with a good fertilizer, unless the land had received an application of seven to eight tons of very short, well-rotted stable manure before plowing. We will here remark that stable manure is the best of all fertilizers, but there being some difficulty in obtaining it, and objections to its use on account of its offensive appearance and smell, we recommend in Landreth's Lawn Fertilizer a good grade of concentrated fertilizer. Six to seven hundred pounds to the acre of such mixture should be applied. The fertilizer should be lightly harrowed in upon the seed bed, as it will be lost to the young plants if buried much beneath the surface. After the harrowing the ground should be severely rolled, that the earth and seed may be brought into close contact. Our Lawn Grass Mixture should be sown at the rate of sixty pounds to the acre and rolled down. Sowing in September and October will be found most advantageous in latitudes south of Philadelphia; in more northerly locations Spring sowing is most successfully practiced, the work being done in April and May.

Annual seeds, natural to the soil, are certain to spring up before the young grass becomes established, and an inexperienced person is likely to conclude that the weeds spring from weed seed in the grass seed, but all soils contain weed seeds, and upon tillage they are certain to vegetate. The weeds as they become large enough may be cut down or pulled up; after the first year their growth will cease. Frequent rolling is advantageous in producing a good Lawn by solidifying the soil, harassing insects and other vermin, and improving the level of the surface.

Students of agriculture will find the volume on the "Grasses of North America," by Professor W. J. Beale, of much value in assisting them in this interesting study.

On all Lawns will regularly appear, in greater or less numbers, a lot of interlopers, such as Buttercups, Plantains and Dandelions, all from seeds natural to the soil. These uninvited guests should always be dug out, otherwise subsequent labor will be increased one hundred fold by their seeding. Lawns may be advantageously dressed with stable manure in December, the long strawy portions being removed in March.

On those portions of Lawns as around the house, where an immediate result in grass effect is desired, sod may be used. Fair sod can generally be had on roadsides, and if carefully taken up and when laid down accurately jointed and solidified, and covered with half an inch of rich compost, it will at once start off and very soon be as much a fixture as the adjoining trees and shrubs.

Lawn Grass of good quality should produce a fair mat of herbage in from seventy to ninety days.

Some parties offering Lawn Grass at a low price are using the so-called Canada Blue Grass, which is not only worthless, but a pest and difficult to eradicate.

Some people, after seeding a piece of land with Lawn Grass, expect to see a green mat in two or three weeks, but in this they are unreasonable, as the better varieties of grass are slow to produce effect, and when an effect is quickly developed it is at the expense of adaptability and permanency. For instance, a fine mat of green color can be had in two weeks from a heavy sowing of White Clover, something very effective and pleasing to the eye, but Clover is not a Grass and is not suitable for Lawns, failing to produce that velvet-like effect, the result of the growth of the erect leaves produced by the best grasses, which habit fits them to quickly recover after mowing.

Manures or fertilizers for Lawns may be of many combinations. We recommend to those who prefer to do their own mixing a compound of

300 pounds of superphosphate, costing say . . .	\$5.00
300 pounds dried meat, blood or fish, at . . . . .	6.00
400 pounds refuse common salt, at . . . . .	1.00

Or say per acre . . . . . \$12.00

The quantity of the two first may be doubled to advantage, or even made stronger, as Grass will stand almost any amount of fertilizer.

The common salt used as an alternative and solvent will be found, through its affinity for moisture, to have a decided influence in keeping up the emerald green condition so desirable on a perfect Lawn. On growing Grass not more than three bushels to the acre should be applied in a season, and then best during a rain—never under a hot sun.

The difference in the rapidity of the growth of Grasses, their quality and their durability are subjects not only of much interest, but of the utmost importance, yet the general agricultural public knows very little about Grass. Farmers study closely the habits of different varieties of Corn, Wheat or Barley, but beyond two or three varieties of Clover, one each of Timothy, Orchard, Blue and Herds Grass, how little is known by the average farmer of Grasses, however well he may be informed in matters connected with the large seeding cereals.

Grasses are grown for three purposes: first, pasturage; second, hay; third, rest for the land and its invigoration.

To know what is best to do, which ever of these purposes be intended, is a test of agricultural capability, especially as the difference in soils makes the decision doubly difficult. However, there are farmers who have made a study of Grasses on various soils, and these men stand head and shoulders above those who have never learned anything of this most interesting agricultural subject.

**A  
Velvet  
Sod**

Any one can have it; corporations do not control it. It will grow in the back yard of a city house as well as in the front. It will grow in the village as well as in the meadow or on the hillside. It is the world-wide covering of the earth, as beautiful as flowers, more durable, less costly, nature's own blanket over the rocky soil. No trouble to prepare the soil to receive the seed, always a fair certainty of its growing, and when established a thing of beauty and a joy.

There exists no reason for unsightly, bare spots in yard or lawn, no reason except indifference to the beautiful, a want of energy, a want of system. Let none of these charges rest against you, reader, but put down Grass Seed wherever it is wanted, and rest assured you will be amply repaid in the satisfaction of having beautified your grounds, and of having set an example of good taste.

# LANDRETHS' MIXTURES


## OF


# Lawn Grass Seeds


Grass Seed Mixtures can be made of greater or less value per 100 lbs. according to the **costs** and proportions of Seeds used; the lower the price per 100 lbs., of course, the cheaper the ingredients, just as in any other mixture. Prices charged by various Seed Establishments are no indication whatever of the merits of their combinations of Varieties—the cheapest Mixtures at first are often the dearest at the end.

The character of the prescriptions used by us are so absolutely of private record that they will not be divulged under any circumstances.

The composition of the mixtures is such as an experience with Grasses shows adapted for the purposes intended.

 Notice the prices are all by the pound, **Sixty Pounds** being required to seed an acre.

 For quantities **over 20 pounds** the price is reduced, as indicated in the **right-hand** column.

 We put up all the various Mixtures in Sacks of 5, 10 and 20 pounds, and Grass for Surface Effect in Packages of  $\frac{1}{4}$ ,  $\frac{1}{2}$  and 1 pound.

In Bulk, less than 20 Pounds, per Pound		20 Pounds and over per Pound
<b>FOR LAWNS—SURFACE EFFECT</b>		
18 cents . . . . .	Ordinary Mixture . . . . .	15 cents
20 cents . . . . .	Superior Mixture . . . . .	18 cents
40 cents . . . . .	Landreths' <b>Extra Special</b> for Lawns . . . . .	35 cents
<b>FOR CRICKET OR TENNIS COURTS</b>		
25 cents . . . . .	Ordinary Mixture . . . . .	20 cents
40 cents . . . . .	Landreths' <b>Extra Special</b> for Athletic Grounds . . . . .	35 cents
<b>FOR GOLF COURSES</b>		
25 cents . . . . .	Ordinary Mixture . . . . .	20 cents
35 cents . . . . .	Landreths' <b>Extra Special</b> for Golf Courses . . . . .	30 cents
<b>FOR PUTTING GREENS</b>		
30 cents . . . . .	Ordinary Mixture . . . . .	25 cents
40 cents . . . . .	Landreths' <b>Extra Special</b> for Putting Greens . . . . .	35 cents
<b>FOR SHADY PLACES</b>		
25 cents . . . . .		20 cents
20 cents . . . . .	<b>FOR PERMANENT PASTURE—LIGHT SOIL</b> . . . . .	15 cents
20 cents . . . . .	<b>FOR PERMANENT PASTURE—HEAVY SOIL</b> . . . . .	15 cents



# Mixtures Made to Order

## Grass Seeds for Lawn Mixtures

The following varieties of Grass Seeds are used in Mixture for seeding down Lawns, Tennis Courts, Cricket Grounds, Golf Links and "Putting Greens" and all Athletic Grounds.

We will make up any mixture of these Grasses as may be desired, ten per cent being added to the printed pound prices to cover unusual costs of special time and labor.

The way to draw out a formula for mixing is to assume one hundred parts as a total and divide up the varieties in proportions as may be considered to be in the proper proportions.

Of Mixed Grasses sown for prompt effect we recommend a seeding of sixty pounds to the acre, which, roughly estimated, is a space 70 by 70 yards square.

## Approved Varieties of Grass

**BLUE GRASS, KENTUCKY** (*Poa Pratensis*).—This is a pasture Grass of high merit, the earliest to start in Spring and continuing green far into the Winter. Though it makes fine quality hay it is not to be recommended for that purpose, being a light cropper. Its uniform growth and its beautiful habit and color make it desirable for lawns. It requires more time than other Grasses to become established, but is the longest living of all. It flourishes best in limestone lands. Root of creeping habit, overpowering weeds. Only flowers once a year. Sow 30 pounds to the acre. 15 cents pound.

**BENT GRASS, CREEPING** (*Agrostis Stolonifera*).—Known in England as Florin, a good soil binder, does well on damp land. The favorite lawn grass in England, as unequaled by any other. Very similar to Blue Grass but of stronger growth. Sow 30 pounds to the acre. Per pound, 20 cents.

**BENT GRASS, RHODE ISLAND** (*Agrostis Canina*).—Resembles Herds Grass, forming a fine turf even on thin soils. Doing especially well in salt atmospheres. The only Lawn Grass used at Newport. So similar to Herds Grass as to be almost indistinguishable. Sow 40 pounds to the acre. Per pound, 25 cents.

**HERDS, OR RED TOP GRASS** (*Agrostis Vulgaris*).—A good perennial Grass, generally sown on permanent pastures. It succeeds Clover and Timothy when they have died out. Does well on any soil, but best on moist land. Takes two years to become established. If kept fed down close it is a good forage plant, but allowed to become rank it is wiry and innutritious. Sow 40 pounds to the acre. 12 cents pound.

**CRESTED DOG'S TAIL** (*Cynosurus Cristatus*).—Foliage deep green, lustrous, long, narrow, soft; a deep rooter. A fine lawn grass and invaluable in pastures. Sow 25 pounds to the acre. Per pound, 30 cents.

**SWEET-SCENTED VERNAL GRASS, PERENNIAL** (*Anthoxanthum Odoratum*).—One of the earliest in Spring and latest in Autumn. It is almost the only Grass that is fragrant, and to its presence our hay fields owe much of their charm. It is used sometimes in Lawn grass mixtures because of its aroma and early Spring growth. It has little nutritious properties in itself, but it is well known that on pasturages where it abounds the finest mutton is produced. It does best on light loams and medium sands, but dies out on black prairie soil. Sow 25 pounds to the acre if sown alone. Per pound, 65 cents.

**MEADOW GRASS, ROUGH STALK** (*Poa Trivialis*).—Resembles Blue Grass; used in England for Lawns. Will flourish in dripping situations as under trees. Sow 30 pounds to the acre. Per pound, 30 cents.

**MEADOW GRASS, WOOD** (*Poa Nemoralis*).—Deep green; valuable in shady places, makes a good turf, endures drought; good for Lawns. Sow 30 pounds to the acre. Per pound, 28 cents.

**FESCUE GRASS, HARD** (*Festuca Duriuscula*).—Does well on damp ground or in salt atmosphere; good for pasturage; retains its green color during drought. Sow 30 pounds to the acre. Per pound, 18 cents.

**FESCUE GRASS, MEADOW** (*Festuca Pratensis*).—A perennial Grass of good quality; grows well in nearly all situations, wet or dry, hill or bottom land. Has round, smooth stems, two or three feet high, lustrous deep green leaves. In mountain lands of Virginia said to grow six feet high, foliage broad. The numerous fibrous roots penetrate good soil twelve to fifteen inches; makes good hay; also a permanent pasture, and as a Lawn grass is of value in the South. Sow 40 pounds to the acre, broadcast. Per pound, 15 cents.

**FESCUE GRASS, SHEEP'S** (*Festuca Ovina*).—Most diminutive of cultivated grasses, leaves, narrow or hair-like, grows in tufts, does well on dry soils, under the shade of trees or on rocky ledges. Sow 35 pounds to the acre. Per pound, 16 cents.

**FOXTAIL, MEADOW** (*Alopecurus Pratensis*).—Resembles Timothy, but two weeks earlier to cut for hay; very hardy, does well under shade, large leaf producer. A spreading perennial of high favor in Europe; one of the earliest and best Grasses for permanent pasture. Habit coarse but suitable for park purposes. Succeeds best on well-drained, rich, loamy or clayey soils; makes excellent hay and should be included in all permanent pastures. Better for pasturage than for hay. Its merits are earliness, quality and quantity, and as a protection or nurse to slower-growing grasses. Sow 25 pounds to the acre. Per pound, 33 cents.

**PERENNIAL RYE GRASS** (*Lolium Perenne*).—Long a standby among the best farmers of England. Leaves long, narrow and fine. Darker in color than the Italian, not more than half as large, and slower to develop.



Cut when in blossom it makes fine hay and abundantly, but not equal to Orchard. It requires a moist climate, and, in such, stands for six or seven years. Perennial Rye Grass will resist overflow, and does well on sloping banks, as its roots are very fibrous and mat-like. It revels on deep, tenacious soils. With Orchard, Timothy and Blue Grass in proper proportions is therefore formed a combination for permanent pastures possessing the chief merits of any prescription that can be drawn for pasturage, but it is not suitable for Lawns except as a nurse or shade to more delicate grasses.

The seed is always of certain germination. pounds to the acre. 10 cents pound.

**WHITE DUTCH CLOVER** (*Trifolium Repens*).—A heavy producer of hay, but invaluable in permanent pastures, and with some desired on Lawns, by no one objected to. Will grow on any soil, but luxuriates in damp locations and in damp seasons. It is very persistent growth on rich soils, affording rare feed, but on thin soils will not succeed. Sow 12 pounds to the acre. Per pound, 20 cents.

# Pasturage Grasses

## LANDRETHS' MIXTURE

The preparation of the land for permanent pasture is a labor that must not be slighted, and though farm work cannot be reduced to the nicety of Lawn culture, we nevertheless direct attention to our directions on Lawn making, and would say that the nearer the directions are followed the greater the probability of success. It must, however, be borne in mind that a pasture sod cannot be obtained in one year.

The judicious selection of Grass Seed for the creation of a durable pasture requires a knowledge obtained only by an intimate study of the habits of varieties as respects quality of herbage and vigor of constitution. Except in the Blue Grass sections of Kentucky and Tennessee, it is not sufficient always to select the one Grass indigenous to the district, for it may not possess the double quality desirable for green pasturage and hay, for hardiness and permanence, which combination of qualities and character is best found in a mixture of sorts. That prescription, to be thoroughly scientific, should be adapted to the geological composition of the soil, be it slaty, calcareous or alkaline, as well as the mechanical condition of the soil, be it sandy, loamy or clayey. These conditions vary so much that no one can attempt to be entirely exact in a recommendation for Grasses to be planted. We cannot more than undertake to prescribe for soils heavy, as clay or deep loam; medium, as light loam or peat; light, as sand, slate or gravel. We are prepared to furnish single Grasses, or two or three in a mixture, to meet the requirements of any ordinary farm land for the production of hay; or, if permanent pasture is desired, we are prepared to furnish mixtures for soils either heavy or light.

### Landreths' Mixtures of Grass Seeds for Permanent Pastures

**FOR HEAVY SOILS**—Forty pounds to the acre. This prescription consists of 100 parts of such grasses as experience has indicated as productive of herbage and most durable on heavy soils. Per 100 lbs., \$15.00; per lb. . . . \$0.20

**FOR LIGHT SOILS**—Forty pounds to the acre. This prescription of 100 pounds, divided into proportions between such varieties of grasses as proved by experience to be the best adapted for light soils, both as respects amount of leafy product and permanence. Per 100 lbs., \$15.00; per lb. . . . \$0.20

### Descriptions of Single Varieties of Grass Seeds

#### Suitable for Mixing for Permanent Pastures

**TIMOTHY** (*Phleum Pratense*).—As a Grass to cut for hay this is unsurpassed. It is coarse if allowed to ripen seed, but if cut in the bloom is bright and highly nutritious. If sown with clover, as is often practiced, it has to be cut before development, being later than clover, and thus there is a loss in returns. It does best on loamy soils. It is a large producer, two or three tons of hay being frequently made; the aftermath is, however, light. It is keenly relished by all stock, especially horses, and is generally more free from dust than other hays. It is better for hay than pasturage. Sow to the acre, if sown alone, 15 pounds. Per pound, 5 cents. Per bushel (45 pounds), \$2.00.

**FOXTAIL, MEADOW** (*Alopecurus Pratensis*).—Resembles Timothy, but two weeks earlier to cut for hay; very hardy, does well under shade; foliage large, broad, soft, coarser than Orchard; habit erect; color, blue-green. A spreading perennial of high favor in Europe; one of the earliest and best Grasses for permanent pasture. Habit coarse, but suitable for park purposes. Succeeds best on well-drained, rich, loamy or clayey soils; makes



cellent hay, and should be included in all permanent pastures. Distinct from Timothy, it is better for pasture than for hay. Its merits are earliness, quality and quantity. Sow 25 pounds to the acre. Per pound, 8 cents.

**IRISH, OR RED TOP GRASS** (*Agrostis Vulgaris*).—A good perennial Grass, generally sown on permanent pastures. It succeeds Clover and Timothy when they have died out. Does well on any soil, but best on moist land. Takes two years to become established. If kept fed down close it is a good forage plant, but allowed to become rank it is wiry and innutritious. Sow 40 pounds to the acre. Per pound, 12 cents.

**ORCHARD GRASS, OR ROUGH COCKSFOOT** (*Dactylis Glomerata*).—One of the most valuable of all the cultivated Grasses, blooming with the Red Clover and making with it an admirable hay. As a pasture Grass it is more productive than any other, and does best under close feeding. It recovers rapidly. It stands drought better than any other Grass, keeping green and growing when others are dried up. In Summer it will grow more feed in a day than Blue Grass will in a week. It is disposed to grow in tussocks; a good preparation of the land, and uniform and liberal seeding is a good preventive. All kinds of stock are fond of it, and it yields an enormous quantity of hay of superior quality. It succeeds well in any soil, doing especially well in moist places. Should be sown in shady places and in all permanent pastures. Sow 50 pounds to the acre. Per pound, 14 cents.

**YELLOW OAT GRASS** (*Avena Flavescens*).—A costly sort but very valuable by reason of its extreme earliness, it giving a fresh bite for cattle before any other variety has developed a leaf. Foliage somewhat resembling Italian Rye Grass. It does well on almost any soil, either dry or wet. Per pound, \$1.25.

**PERENNIAL RYE GRASS** (*Lolium Perenne*).—Long a standby among the best farmers of England. Leaves long, narrow and fine. Darker in color than the Italian, not more than half as large, and slower to develop. Cut when in blossom it makes fine hay and abundantly, but not equal to Orchard. It requires a moist climate, and, in such, stands for six or seven years. Perennial Rye Grass will resist overflow, and does well on sloping banks, as its roots are very fibrous and mat-like. It revels on deep tenacious soils. With Orchard, Timothy and Blue Grass in proper proportions is therefore formed a combination for permanent pastures possessing the chief merits of any prescription that can be drawn for pasturage, but it is not suitable for Lawns. The seed is always of certain germination. Sow 30 pounds to the acre. Per pound, 10 cents.

**RYE GRASS, ITALIAN** (*Lolium Italicum*).—This is a variation of the Perennial Rye Grass, being much earlier and far more rapid in growth, producing larger leaves, more succulent food and three times as much of it; it is not as durable. The leaves are long and soft; the

foliage is a rich green, resembling rye, but lighter in color than the Perennial Rye Grass. It makes a great show, developing from seed the quickest of any of the valuable grasses. Is a stronger feeder, enduring any amount of irrigation or manure. Succeeds best in moist soil, and, in such, is the best grass for soiling, affording repeated luxuriant and nutritious crops. It is not suited for permanent pastures, for, though making a splendid appearance for one or two years, it then dies and leaves the land bare, having smothered out all other Grasses. Its strong germinative power, its rapid development, its luxuriant herbage, its hardy habit, its nutritive qualities, all point to it as a valuable Grass where a quick return is desired. Sow 30 pounds to the acre. Per pound, 12 cents.

**RESCUE GRASS** (*Bromus Shraderi*).—Does well on wet land and can be cut three times a year. Sow 40 pounds to the acre. Per pound, 25 cents.

**BROMUS INERMUS**.—A remarkably strong-growing grass of the arid plains of Russia, thriving on lands too dry for other sorts. When grown on good soil it yields enormous crops. Its habit is to make strong tufts and to hold its color till after hard frost. Its vigorous character makes it a good grass for embankments. Its foliage is like rye, color pale green, long, straight, broad, soft, light in color. Stronger than Orchard Grass. The seed stalks reach 2 to 4 feet in height, closely set with long leaves. The seed is borne after the manner of oats. Sow 40 pounds to the acre. Per pound, 18 cents.

**MEADOW GRASS, OAT** (*Avena Elator*).—Quick growing sort, productive, very showy, quite remarkable as a first-year cropper; strong broad leaf, roots deeply, starts early, the cut grass dries rapidly. Valuable in cold latitudes. Sow 30 pounds to the acre. Per pound, 28 cents.

**MEADOW GRASS, WOOD** (*Poa Nemoralis*).—Deep green; valuable in shady places, makes a good turf, endures drought; good for Lawns. Sow 30 pounds to the acre. Per pound, 28 cents.

**VARIOUS-LEAVED FESCUE** (*Festuca Heterophylla*).—A native of France and a valuable grass for permanent pastures, especially on uplands. It yields a large bulk of herbage, but produces little feed after mowing. Its beautiful, dark-green foliage renders it suitable for park mixtures. Sow 40 pounds to the acre. Per pound, 25 cents.

In addition to the above-named grasses, some of which are usually found present in artificially sown pastures, we recommend small proportions of some of these varieties described under Lawn Grasses, as Kentucky Blue, English Bent or Florin, Hard Fescue, Foxtail, Dogstail, as by a multiplication of varieties all having more or less distinct seasons of development, bring about a continuity of verdant growth.



# CLOVERS

## *Used in connection with Grasses for Pasturage Mixtures*

**WHITE DUTCH CLOVER** (*Trifolium Repens*).—Not a heavy producer of hay, but invaluable in permanent pastures. Will grow on any soil, but luxuriates in damp locations and in damp seasons. It is very persistent in growth on rich soils, affording rare feed, but on thin soils will not succeed. Sow 12 pounds to the acre. Per pound, 20 cents.

**RED CLOVER** (*Trifolium Pratense*).—This is the most widely cultivated of the pastoral plants; loosening the soil and admitting the air, and drawing up and storing away near the surface the valuable principles scattered in the earth beneath, it is regarded as one of the best of vegetable fertilizers, as well as a cattle food of the highest merit. Its luxurious foliage, by shade, increases the fertility of the earth and smothers noxious

weeds. It is a lime plant and does best on stiff loams. Its habit of growth is rapid, and, though naturally a biennial, may, by close pasturage, be made to last three or more years. Sow in Autumn south of the Potomac or Ohio, and in Spring in Northern States. Sow 16 pounds to the acre. Per pound, 12 cents. Per bushel (60 pounds), \$5.00; per quart, 2 cents.

**RED CLOVER, MAMMOTH**.—On rich loamy soils this variety, if the seed be true to name, develops twice as much bulk of stem and leaf as the common Red. Consequently, it is very valuable as a fertilizer. It is a plant of longer life than the Common Red Clover, and earlier to start a spring growth. Per pound, 15 cents; per bushel, \$5.00; per quart, 30 cents.

# OTHER CLOVERS

## *Sown as Unmixed Crops and used mostly for Stall Feeding*

**ALFALFA OR LUCERNE** (*Medicago Sativa*).—In localities where it flourishes this is one of the most valuable among the Clovers. Standing for years, shooting its roots downward till they are ten to fifteen feet below the surface, it resists the driest weather, and when every blade of grass droops for want of moisture, it holds up fresh and green as in genial Spring. It does not succeed on compact clay nor on land with impermeable subsoil. Far from exhausting land, it increases fertility, as has been fully established. Cattle pastured upon Alfalfa are apt to eat off the crowns, consequently the best practice is to cut it and stall-feed the animals. Sow 10 pounds to the acre. Per 100 pounds, \$11.50; per pound, 14 cents.

**ALSIKE CLOVER** (*Trifolium Hybridum*).—The earliest large Clover. Possibly a hybrid between the Red and White, possessing qualities common to both; productive, sweet, extremely valuable, both for pasturage or soiling. Clover-sick lands will sometimes produce fine crops of Alsike, which lands, after three years in Alsike, and an intermediate grain crop, will again produce Red Clover. The flowers are a distinct light pink, and afford fine pasturage for bees. This Clover seeds itself freely the first year and every year, and does well as far North as Canada. This is sometimes added to pasturage mixture. Sow 12 pounds to the acre. Per 100 pounds, \$12.00; per pound, 14 cents.

**JAPAN CLOVER** (*Lespedeza Striata*).—Fifteen pounds to the acre. Per pound, 35 cents.

**SAIN FOIN** (*Onobrychis Sativa*).—This (not a Clover) in some sections is an important foliage plant, producing an immense quantity of green food, and, under favorable conditions, large crops of hay. It requires a lime soil, and will not succeed north of the Potomac or Ohio. The seeds are of high value as food for fowls. Sow 10 pounds to the acre. Per pound, 12 cents.

**SCARLET OR CRIMSON CLOVER** (*Trifolium Incarnatum*).—This Clover is very popular with the farmers of Delaware, Maryland, Eastern Pennsylvania and New Jersey, and is being recognized throughout the West and South as a necessary and valuable addition to economical farming. May be sown at any time from May to October. Sown early, the first growth is available for pasture in the Fall, and still make a good crop of hay the following Spring, or may be turned under for Corn or other crops, and for that purpose is said to be even more valuable than the ordinary Red Clover. Rooting very deep, it supplies nitrogen and potash largely to the soil. Will grow a heavy crop of hay or seed on the poorest land. Sow 15 pounds to acre. Horses and cattle are fond of the hay, which should be cut as soon as in full bloom. Taken altogether, the Scarlet or Crimson Clover is a great boon to the farming community, being principally used for plowing under as a green crop. Per 100 pounds, \$8.00; per pound, 10 cents.



# Grass Working Machinery

...USED ON...

## Lawns, Tennis Courts, Golf Courses

Philadelphia Lawn Mowers . . . . .	\$17.00 to \$140.00	Pumps, Champion . . . . .	\$5.00
Pennsylvania Lawn Mowers . . . . .	\$4.75 to \$12.00	Rakes, Lawn, Wood . . . . .	30 cts. to 45 cts
Stearns Ball Bearing Lawn Mowers . . . . .	\$5.00 to \$10.00	Rakes, Lawn, Automatic . . . . .	60 cts. to \$1.00
New Departure Lawn Mowers . . . . .	\$6.00 to \$7.50	Rakes, Lawn, Wire . . . . .	50 cts. to 90 cts
Universal Lawn Mowers . . . . .	\$2.50 to \$2.75	Rakes, Hay . . . . .	30 cts. to 35 cts
Richmond Sod Cutter . . . . .	\$22.00 to \$23.00	Rakes, Garden, Steel . . . . .	25 cts. to 70 cts
Lawn Rollers . . . . .	\$45.00 to \$80.00	Rakes, Gravel . . . . .	35 cts. to 40 cts
Hoes, Boots for use on Lawns . . . . .	\$7.50 per set of Four	Scythes, American . . . . .	60 cts
Barrows with Leaf Rack, 3½ inch Tires . . . . .	\$10.25	Scythes, Lawn, Imported . . . . .	\$1.00 to \$1.35
Forks, Hay . . . . .	35 cts. to 50 cts	Scythes, Bramble . . . . .	50 cts
Garden Lines . . . . .	2 cts. per yard	Scythes, German or Dutch . . . . .	\$1.25
Garden Reels . . . . .	90 cts. to \$2.00	Scythes, Stones, Welsh . . . . .	15 cts. each
Grind Stones . . . . .	\$5.00 to \$9.00	Scythes, Stones . . . . .	6 cts. to 10 cts. each
Grass Hooks, American . . . . .	25 cts	Scythes, Stones, Rifles . . . . .	6 cts
Grass Hooks, Imported . . . . .	35 cts. to 75 cts	Sod Trimmers . . . . .	75 cts. to \$1.35
Grass Hooks, German . . . . .	30 cts. to 40 cts	Shears, Lawn . . . . .	\$3.00 to \$3.50
Hoes, Grubbing . . . . .	75 cts	Shears, Grass . . . . .	50 cts. to \$1.40
Lawn Sprinklers . . . . .	75 cts to \$15.00	Snaths, Scythes, Patent . . . . .	60 cts
Mole Traps, out of sight . . . . .	\$1.00 each	Snaths, Bush or Briar . . . . .	65 cts
Mole Traps, Olmstead . . . . .	\$1.50 each	Turfing Spade . . . . .	\$5.00
Mole Traps, English . . . . .	30 cts. each	Water Barrel, on wheels . . . . .	1½ inch tire, \$6.50
Picks, with handles . . . . .	\$1.15	Water Barrel, on wheels . . . . .	2½ inch tire, \$7.50
Picks, without handles . . . . .	90 cts	Water Barrel, on wheels . . . . .	3½ inch tire, \$8.75
Pumps, Force and Light . . . . .	\$6.50 to \$8.00	Wheelbarrows . . . . .	\$2.25 to \$7.00
Pumps, Excelsior . . . . .	\$6.50		